

Attorney's Docket No.: 10559-454001/P10771
Intel Corporation

REMARKS

Claims 1-28 are pending. Claims 24-28 have been added. Claims 1-3, 5-7, 9-19, and 21-23 have been amended. Many of these amendments have broadened the scope of the claims.

Claims 1, 9, 19, and new claim 24 are in independent form.

Claim 1

In the action mailed May 3, 2005, claim 1 was rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 6,047,035 to Yellin (hereinafter "Yellin") and under 35 U.S.C. § 102(e) as anticipated by U.S. Patent Publication No. 2002/0181624A1 to Gonzalez et al. (hereinafter "Gonzalez").

As amended, claim 1 relates to a method of normalizing an output of a receiver. The method includes determining a normalization factor using a determined variance of multiple access interference, and applying the normalization factor to the output of the receiver.

Neither Yellin nor Gonzalez describes or suggests a normalization factor that is determined using a determined variance of multiple access interference being applied to the output of a receiver. Yellin's received samples are normalized according to a desired RMS fade and an estimated RMS. See, e.g., Yellin, Eq. 10. Gonzalez uses a final channel estimate as the linear combination of pilot-aided and data-aided channel

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estimates and the variances of those estimates. See, e.g.,
Gonzalez, Eq. 10 and para. 0038.

Neither Yellin nor Gonzalez determines the variance of multiple access interference. Thus, neither Yellin nor Gonzalez describes or suggests applying a normalization factor that is determined using a determined variance of multiple access interference.

Accordingly, claim 1, and the claims dependent therefrom, are not anticipated by Yellin or Gonzalez.

Claim 9

Claim 9 was rejected under 35 U.S.C. § 102(b) as anticipated by Yellin and under 35 U.S.C. § 102(e) as anticipated by Gonzalez.

As amended, claim 9 relates to a receiver. The receiver includes a detector, a metric correction section, and a channel decoder. The detector receives transmitted information and provides one or more output symbols based on the transmitted information. The metric correction section normalizes the one or more output symbols to obtain one or more metrics. The normalization is based on a determined variance of multiple access interference. The channel decoder receives the one or more metrics from the metric correction section and utilizes the one or more metrics to decode the transmitted information.

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Neither Yellin nor Gonzalez describes or suggests a normalization that is based on a determined variance of multiple access interference. Yellin's received samples are normalized according to a desired RMS fade and an estimated RMS. *See*, e.g., Yellin, Eq. 10. Gonzalez' final channel estimate is the linear combination of pilot-aided and data-aided channel estimates and the variances of those estimates. *See*, e.g., Gonzalez, Eq. 10 and para. 0038.

Neither Yellin nor Gonzalez determines the variance of multiple access interference. Thus, neither Yellin nor Gonzalez describes or suggests applying a normalization factor that is determined using a determined variance of multiple access interference.

Accordingly, claim 9, and the claims dependent therefrom, are not anticipated by Yellin or Gonzalez.

Claim 19

Claim 19 was rejected under 35 U.S.C. § 102(b) as anticipated by Yellin and under 35 U.S.C. § 102(e) as anticipated by Gonzalez.

As amended, claim 19 relates to a method that includes receiving one or more output symbols from a detector, determining a normalization factor for each of the one or more output symbols, multiplying each of the one or more output

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symbols by the corresponding normalization factor to obtain a metric correction, and providing the metric correction for each symbol to a channel decoder. Each normalization factor is independent of normalization factors for previous output symbols.

Neither Yellin nor Gonzalez describes or suggests multiplying each of the one or more output symbols by a corresponding normalization factor, where each normalization factor is independent of normalization factors for previous output symbols. Yellin's set of correction parameters is determined for an entire portion of a received signal based on the detected characteristics of that entire portion. See Yellin, col. 9, line 35-38. Each set of correction parameters is applied to quantize that entire portion of the signal after it is retrieved from a frame buffer. See Yellin, col. 9, line 43-45. The correction parameters are thus the same for any successive symbols in that entire portion, and hence not independent of the correction parameters for previous output symbols.

Gonzalez' final channel estimate is the linear combination of pilot-aided and data-aided channel estimates and the variances of those estimates. See, e.g., Gonzalez, Eq. 10 and para. 0038. The data-based estimate is itself a weighted

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average of individual realizations of the channel estimate.

See, e.g., Gonzalez, Eq. 9 and para. 0035. Gonzalez's data-based estimate, and hence his final channel estimate, are thus not independent of the estimates for previous output symbols.

Accordingly, claim 19, and the claims dependent therefrom, are not anticipated by Yellin or Gonzalez.

Claim 24

Claim 24 is newly added. To advance prosecution, Applicant now addresses Yellin and Gonzalez.

Claim 24 relates to a method that includes receiving a symbol, determining a normalization factor for the symbol using a determined variance in a level of multiple access interference for the symbol, normalizing the symbol with the normalization factor, and providing the normalized symbol to a channel decoder.

As discussed above, neither Yellin nor Gonzalez determines the variance of multiple access interference. Therefore, neither Yellin nor Gonzalez describes or suggests determining a normalization factor for the symbol using a determined variance in a level of multiple access interference for the symbol.

Further, neither Yellin nor Gonzalez describes or suggests determining a normalization factor for a symbol. Rather, Yellin determines a set of correction parameters for an entire portion

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of a received signal, and Gonzalez determines a data-based estimate, and hence his final channel estimate, based on the weighted average of individual realizations.

Accordingly, claim 24, and the claims dependent therefrom, are patentable over Yellin and Gonzalez.

Applicant asks that all claims be allowed. Please apply the excess claim fees to Deposit Account No. 06-1050. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

BY

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